

The Opposition: Japanese Forces and Operational Planning

3



Opposing the Soviet Far East Command were the Japanese Kwantung Army and its Manchukuoan and Inner Mongolian auxiliaries. The Kwantung Army was a venerable force whose name for years had evoked the respect of prospective foes. Formed in 1919 to defend Kwantung territory, and responsible for all of Manchuria after the Japanese seizure of the region in 1931, the Kwantung Army had grown into a formidable force of one million men by 1941. Most military authorities considered the army the most prestigious and powerful unit of the Japanese Army. The army's primary mission was to lend substance to the Manchukuoan government and to provide security from and perhaps offensive potential against the Soviet Union, should the need arise. In the 1930s the Soviets experienced numerous border incidents with the Kwantung Army. More significant confrontations took place at Lake Khasan in 1938 and at Khalkhin-Gol (Nomonhan) in 1939.*

The Kwantung Army figured heavily in Soviet concerns after the German invasion of the Soviet Union in 1941. While confronting the German threat, the Soviets had to keep a sharp eye on Germany's partner, Japan, lest the Kwantung Army undertake offensive operations against the Soviet Far East. These concerns caused the Soviet Union to retain a major force of about forty divisions (including two tank and two motorized rifle) in the Far East and the Trans-Baikal areas throughout the war years.¹ Those forces could have been well used to help counter the German threat in the west. The Soviet-Japanese Neutrality Pact of 1941 provided the Soviets a measure of security. Japanese preoccupation with events in China and the Pacific reinforced that feeling of security. Yet, the Kwantung Army remained a major concern right up to the hour of the Soviet attack in August 1945.

*For details on the Khalkhin-Gol conflict, see Edward J. Drea, *Nomonhan: Japanese-Soviet Tactical Combat, 1939*, Leavenworth Paper no. 2 (Fort Leavenworth, KS: Combat Studies Institute, U.S. Army Command and General Staff College, 1981).

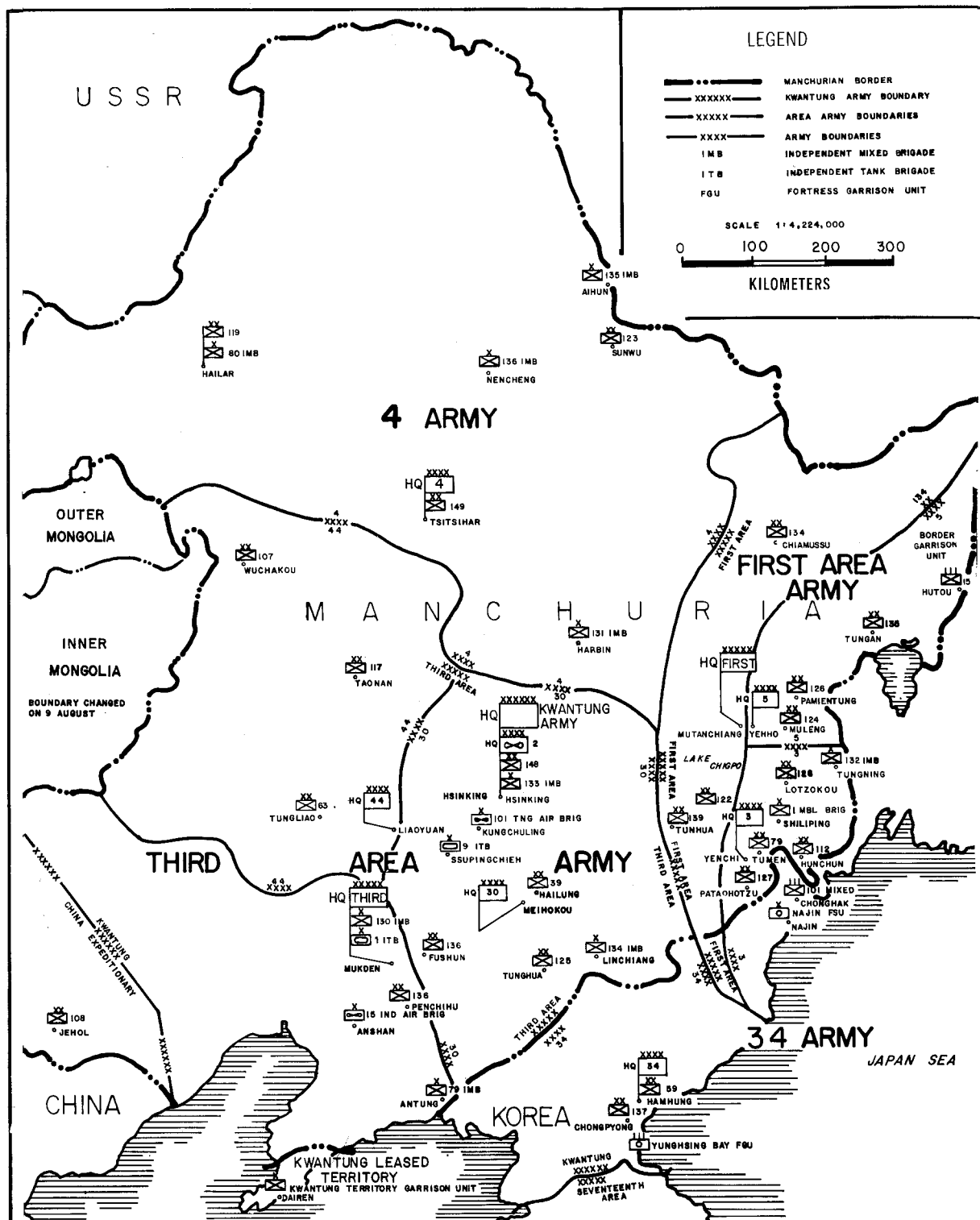
Before 9 August 1945, the Japanese Kwantung Army, commanded by General Yamada Otozo, consisted of two area armies (army groups) and a separate combined army, supported by one air army and the Sungarian Naval Flotilla (see app. 1 and map 8).⁶ The First Area Army of General Kita Seiichi consisted of the 3d Army and the 5th Army, each made up of three infantry divisions. Under First Area Army control were four infantry divisions and one independent mixed brigade. The First Area Army was responsible for eastern Manchuria and numbered 222,157 men (see map 9).⁷

The Third Area Army of General Ushiroku Jun consisted of the 30th Army with four infantry divisions, one independent mixed brigade, and one tank brigade, and the 44th Army with three infantry divisions, one independent mixed brigade, and one tank brigade. Under direct Third Area Army control were one infantry division and two independent mixed brigades. Encompassing central and western Manchuria from the Amur River to the Liaotung Peninsula, the Third Area Army numbered 180,971 men (see map 10).⁸

The 4th Separate Army, under Lt. Gen. Uemura Mikio and headquartered at Tsitsihar, was responsible for north central and northwestern Manchuria. It consisted of three infantry divisions and four independent mixed brigades and numbered 95,464 men (see map 11).⁹ In addition, the 125th Infantry Division at Tunghua was directly subordinate to Kwantung Army headquarters.

At the outbreak of hostilities, the Imperial High Command reassigned the 34th Army and Seventeenth Area Army to the Kwantung Army. The 34th Army headquartered at Hamhung in northern Korea consisted of the 59th Infantry Division at Hamhung and the 137th Infantry Division at Chongpyong, and had 50,104 men.¹⁰ In southern Korea, the Seventeenth Area Army consisted of seven infantry divisions and two independent mixed brigades.

The basic building block of the Japanese force structure was the infantry division. Japanese infantry divisions were organizationally stronger in manpower than the Soviet rifle divisions. Even in their reduced 1945 state, most Japanese divisions still outmanned their Soviet equivalents. In weaponry, however, the Japanese division was weaker than its Soviet counterpart, and few Japanese divisions actually possessed all the weapons they were authorized. Two types of infantry divisions existed in the Japanese force structure. The normal and more numerous type was the triangular division configured for tactical operations. Such a division originally contained 20,000 men, but by 1945 numbered from 12,000 to 16,000 men (a few had as many as 18,000, and some had as few as 9,000 men).¹¹ The 1945 triangular division (see table 2) consisted of three infantry regiments of three battalions each, a raiding battalion, an artillery regiment with three battalions (thirty-six guns total), an engineer regiment, a transport regiment, a signal company, and support units.¹²



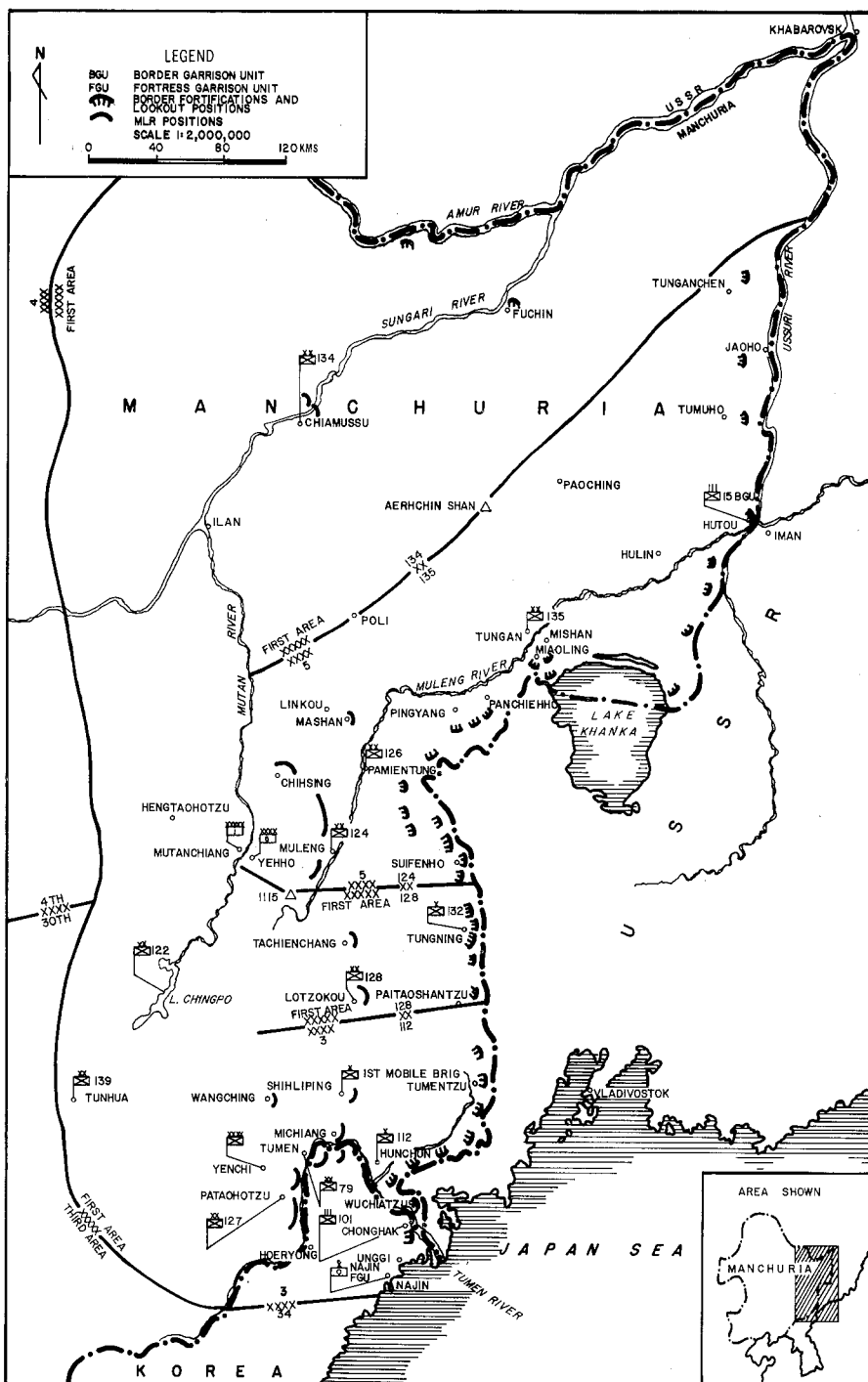
Map 8. Kwantung Army Dispositions

During the Pacific and China wars, the Kwantung Army eroded in strength and quality as the requirements of other theaters drew off its assets.² Many experienced units were siphoned off and replaced by units formed from draft levies, reservists, and cannibalized smaller units. According to Soviet estimates, in August 1945 the Kwantung Army (including forces in Korea) numbered thirty-one infantry divisions, nine infantry brigades, two tank brigades, and one special purpose brigade formed into three area armies (army groups), a separate combined army, one air army, and the Sungarian Naval Flotilla.³ The Soviets assert that this force contained 1,155 tanks, 5,360 guns, and 1,800 aircraft. Added to these was the army of Manchukuo, numbering eight infantry and seven cavalry divisions, with fourteen infantry and cavalry brigades. On southern Sakhalin Island and in the Kurile Islands were three infantry divisions and one infantry brigade of the Fifth Area Army subordinate to the Japanese Imperial High Command. The strength of the entire force numbered 1.2 million men, of which more than one million were Japanese (see table 1).⁴ Discounting forces in southern Korea, southern Sakhalin, and the Kuriles, Japanese sources place the number of Japanese troops in Manchuria at 713,724 men.⁵ Thus, the overall ratio of Soviet to Japanese forces with auxiliaries was 1.2:1. Counting only the Japanese in Manchuria proper, the ratio was 2.2:1. In tanks and artillery, the ratio was 4.8:1; and in aviation assets, about 2:1.

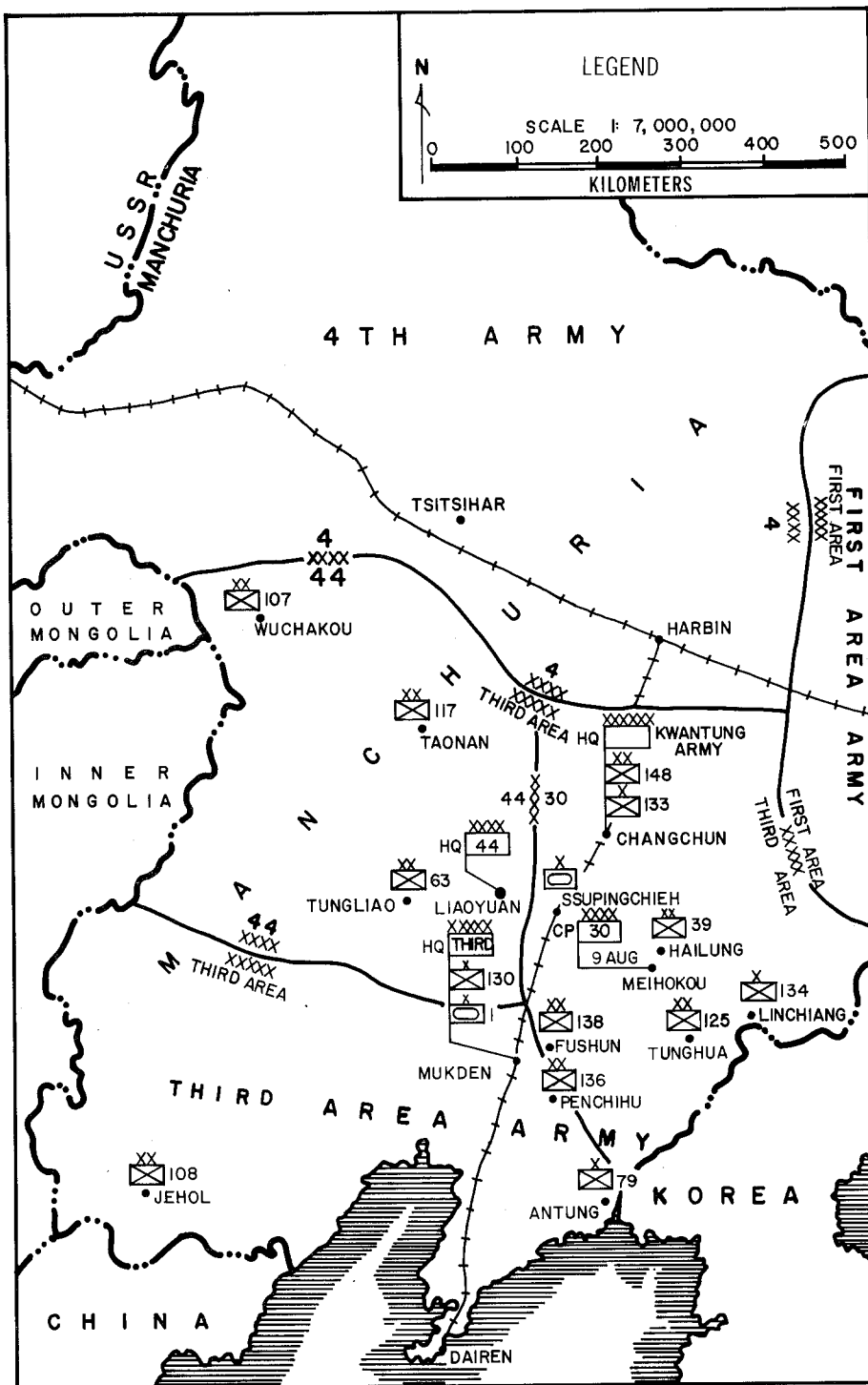
Table 1. Composition of Forces Facing the Soviets in the Far East

Strength	Personnel: 1,217,000 Weapons: Tanks 1,155 Guns 5,360 Aircraft 1,800			
Forces	Japanese — 993,000		Auxiliary — 214,000	
	Manchuria (Kwantung Army) 713,000	Southern Korea, Sakhalin, Kuriles 280,000	Manchukuoan Army 170,000	Inner-Mongolian Forces 44,000
Subunits	2 area armies 6 armies 24 infantry divisions 9 infantry brigades 2 tank brigades	1 area army 10 infantry divisions 3 infantry brigades	8 infantry divisions 7 cavalry divisions 14 infantry/cavalry brigades	5—6 cavalry divisions/brigades

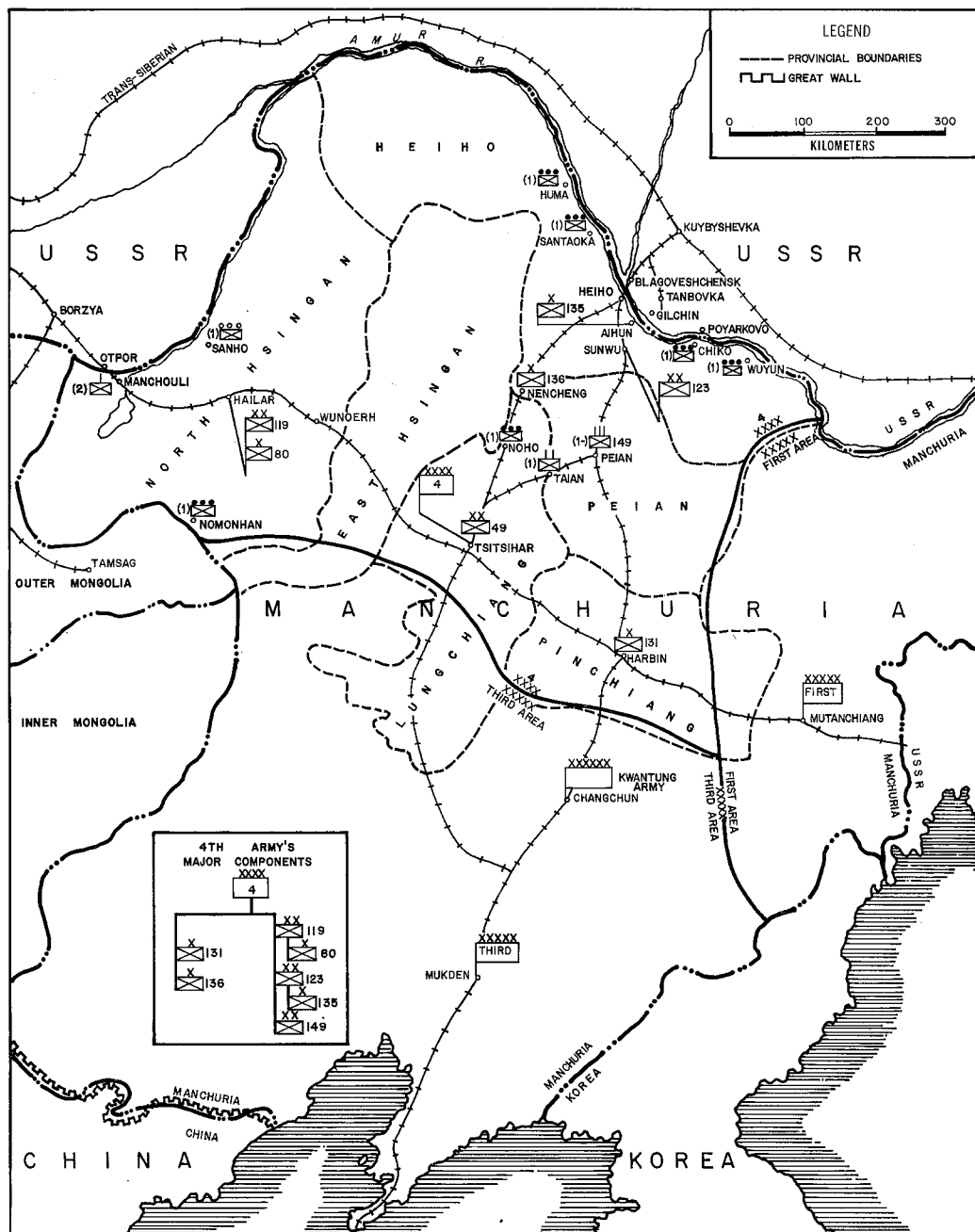
Sources: "Kampaniia sovetskikh vooruzhennikh sil na dal'nem vostokey v 1945g (facti i tsifry)" [The campaign of the Soviet armed forces in the Far East in 1945: Facts and figures], *Voenno-istoricheskii Zhurnal* [Military history journal], August 1965; L. N. Vnotchenko, *Pobeda na dal'nem vostokey* [Victory in the Far East] (Moskva: Voennoe Izdatel'stvo, 1971); U.S. Army Forces Far East, Military History Section, Japanese Monograph no. 155: *Record of Operations Against Soviet Russia — On Northern and Western Fronts of Manchuria and in Northern Korea (August 1945)* (Tokyo, 1954), table 1.



Map 9. Japanese First Area Army Dispositions



Map 10. Japanese Third Area Army Dispositions





Map 11. Japanese 4th Separate Army Dispositions

The second type was the square division, a light infantry division originally organized for garrison duty in China. The square division (see table 2) consisted of two infantry brigades, each with four infantry battalions, an engineer battalion, a signal company, and support units.¹³ Because of its garrison mission, the square division had neither artillery nor antitank support. Thus, higher commands had to attach artillery and antitank units

to the divisions before they could perform field service. The 63d and 117th Infantry Divisions were square divisions; all of the remaining divisions were triangular. The infantry divisions were armed with rifles, machine guns, mortars, and artillery pieces, but had no submachine guns, antitank rifles, or rocket artillery. Antitank capability was provided by a battalion of sixteen 37-mm antitank guns, weapons ineffective against modern World War II medium and heavy tanks.

Table 2. Japanese Infantry Division TO&E, 1945

Type		
Average Personnel Strength	13,500	13,500
Organization	3 infantry regiments 3 infantry battalions 1 artillery regiment 2 artillery battalions 1 antitank battalion, 16 × 37mm 1 engineer regiment 1 raiding battalion 1 transport regiment 1 signal company	2 infantry brigades 4 infantry battalions 1 engineer battalion 1 signal company

Source: U.S. Army Forces Far East, Military History Section, Japanese Monograph no. 155: *Record of Operations Against Soviet Russia — On Northern and Western Fronts of Manchuria and in Northern Korea (August 1945)* (Tokyo, 1954), charts 1, 2.

The independent mixed brigade was a small division, normally comprising five battalions with separate support and supply units and averaging 5,300 men.¹⁴ Above division level, the Kwantung Army also suffered from a deficiency of weaponry, particularly armor. Tanks carried only 57-mm guns and machine guns. In addition to being outgunned, these tanks had less armor than the Soviet T-34s.

Despite its numerical strength, the Kwantung Army lacked quality. The Japanese Imperial High Command had transferred most veteran Japanese divisions from Manchuria before the summer of 1945. Hence, most remaining divisions were newly formed from reservists or from cannibalized smaller units. In fact, only the 119th, 107th, 108th, 117th, 63d, and 39th Infantry Divisions had existed before January 1945.¹⁵ Training was limited in all units, and equipment and materiel shortages plagued the Kwantung Army at every level. The Japanese considered none of the Kwantung Army divisions combat ready and some divisions only 15 percent ready.¹⁶

The Japanese High Command's difficulty in maintaining the strength and readiness posture of its force structure had a significant impact on Japanese strategic and operational planning. As the Kwantung Army weakened, planning shifted from the offense (before 1944) to realistic defense (in September 1944) and ultimately to acceptance of the need to delay on the borders and defend deeper in Manchuria (in 1945). Japanese acquiescence in a new strategy of delay followed by defense became apparent in May 1945. Kwantung Army headquarters drafted new plans incorporating Fabian tactics and distributed those plans to area armies in June 1945.¹⁷

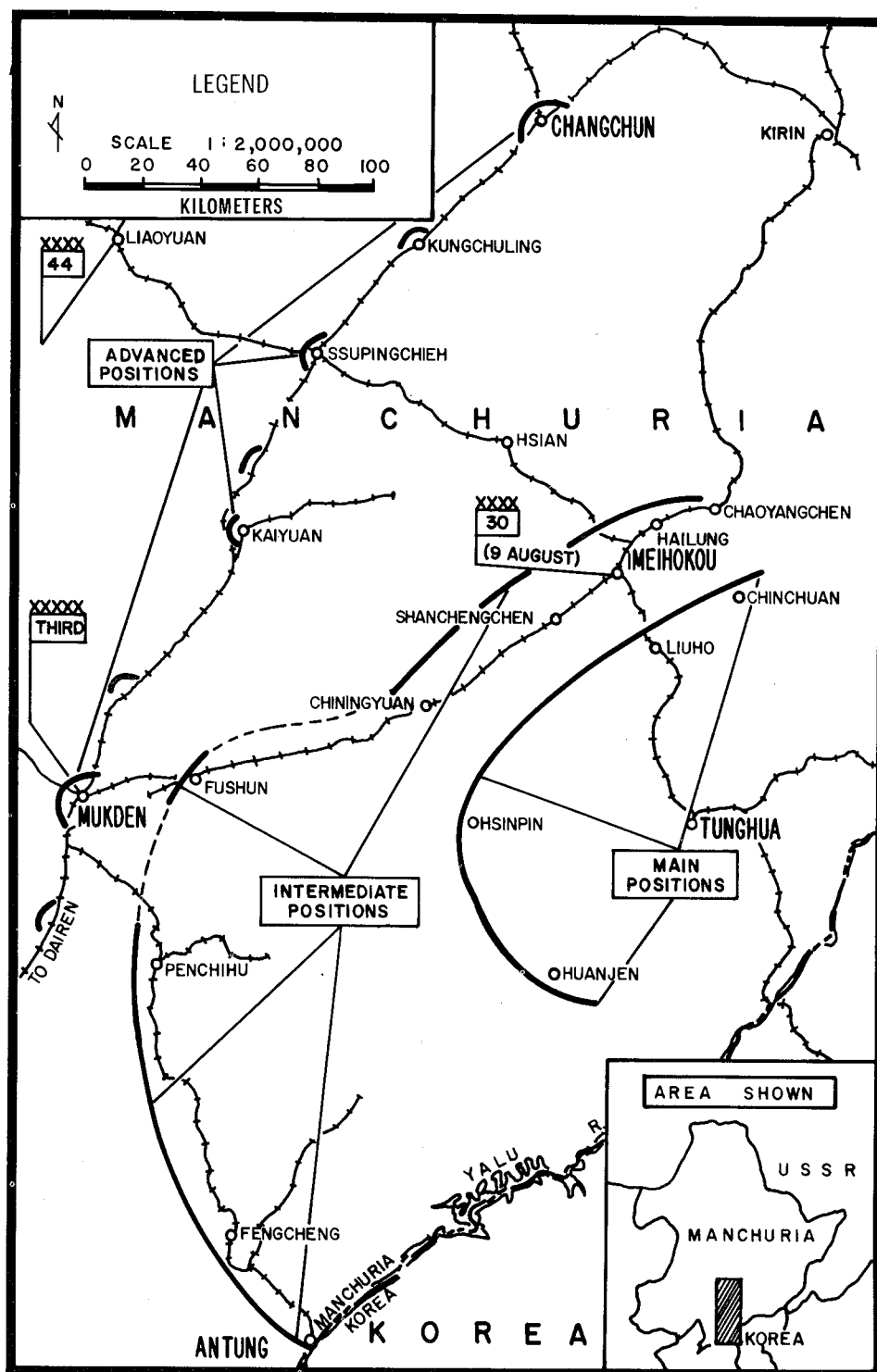
The May-June plans provided for delay at the borders and subsequent defense of successive positions, culminating in a final defense in a redoubt stronghold constructed in the Tunghua area (see map 12). According to this plan, the First Area Army would delay with platoon- to battalion-size elements occupying fortifications on the eastern border. The main force of divisions and brigades would occupy defensive positions forty to seventy kilometers to the rear, in the vicinity of the cities of Fangcheng, Chihsing, Tachienchang, Lotzokou, and Tumen. The plan provided for main force units to withdraw to new positions at Tunghua and Antu before they became decisively engaged (see map 13).

The Third Area Army would use companies and battalions to delay the Soviet advance through the fortified zone running from Handagai to Wuchakou on the western border. Main force divisions would avoid decisive battle by withdrawing eastward through a series of defensive positions. The first defensive line stretched from Mukden to Changchun, and the final position extended from Huanjen through Hsinpin to Chinchuan in the redoubt area of Tunghua. The 4th Separate Army planned to delay at the border fortifications in northwest Manchuria and along the rail line through the Grand Khingan Mountains, to defend a line from Pokotu through Nencheng to Peian, and ultimately to withdraw to Tsitsihar and Harbin to join the main Kwantung Army forces (see map 14).

According to these plans, roughly one-third of the Japanese force would deploy in the border region with the remaining two-thirds concentrated in operational depth to create the series of defensive lines. The Japanese hoped that rough terrain, long distances, and determined opposition would take their toll on the Soviets, eroding Soviet strength to the point of exhaustion by the time they reached the redoubt area, where the Japanese could check the Soviet advance and perhaps even counterattack. The immediate problem for the Japanese in the summer of 1945 was to effect the unit redeployments needed to implement the plan, and to complete the required fortification and construction program. Both the redeployment and the fortification programs were still incomplete when the Soviet offensive began.



Map 12. Kwantung Army Defense Plan



Map 14. Third Area Army Defense Plan

Soviet Organization for Combat and Force Structure

4

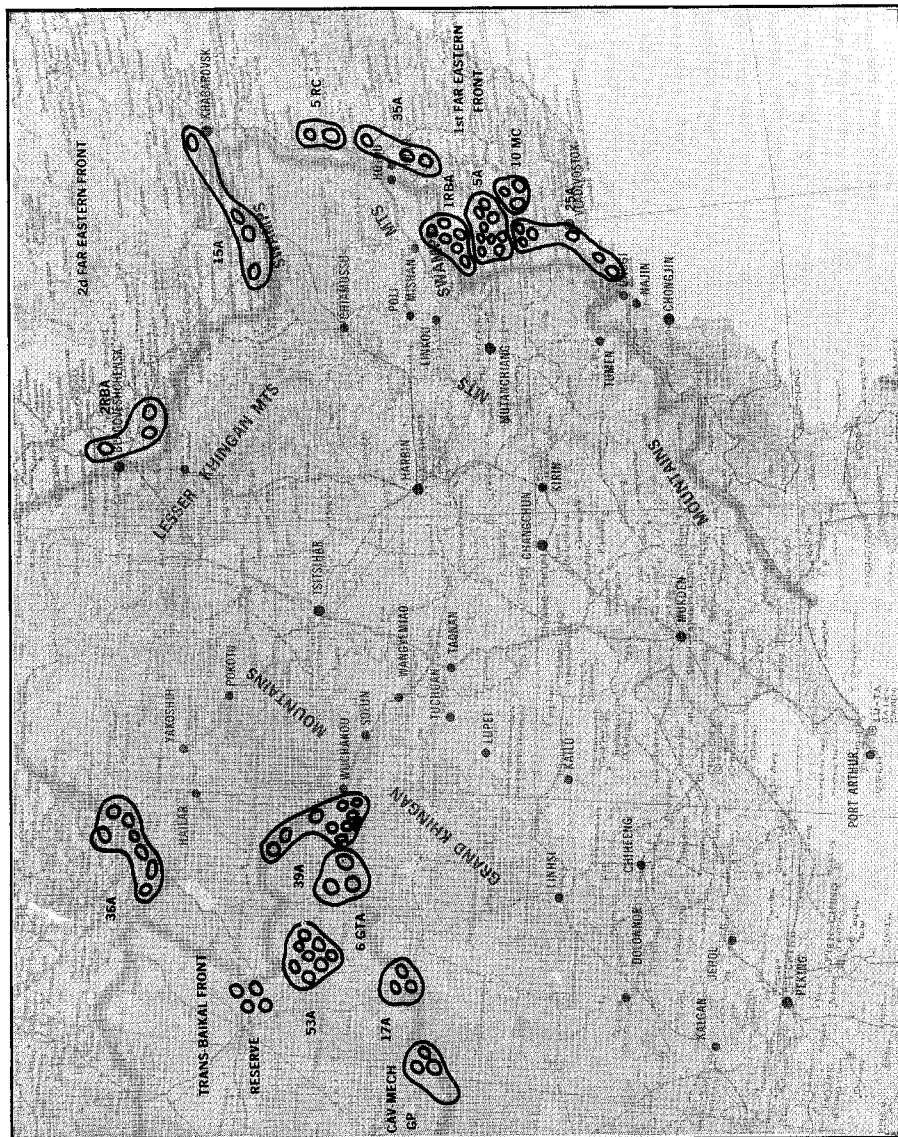


The Soviet High Command organized its forces in the Far East and Trans-Baikal regions into a unified command. The complexity of terrain in Manchuria, the vastness of the area of operations, and the necessity for a well-coordinated, timed operation required such unity. The resulting Far East theater headquarters under Marshal A. M. Vasilevsky was a structure unique to 1945. It was more formal in its composition and more precise in its functions than earlier theater command and control arrangements. The position of *STAVKA* coordinator used earlier in the war to plan and control multifront operations was ad hoc, with limited power and a negligible staff. Marshals Vasilevsky and Zhukov had performed the role of *STAVKA* coordinator successfully on numerous occasions. By contrast, the new Far East theater commander had considerable power to plan, coordinate, and execute and had a full staff to support him in these functions. The Far East Command had responsibility for all land, sea, and air operations in the Far East and Trans-Baikal regions (see app. 2 and map 15).

Subordinate to the Far East Command were three front headquarters (see tables 3—6): the Trans-Baikal Front of Marshal R. Ya. Malinovsky, the 1st Far Eastern Front of Marshal K. A. Meretskov, and the 2d Far Eastern Front of General M. A. Purkayev.

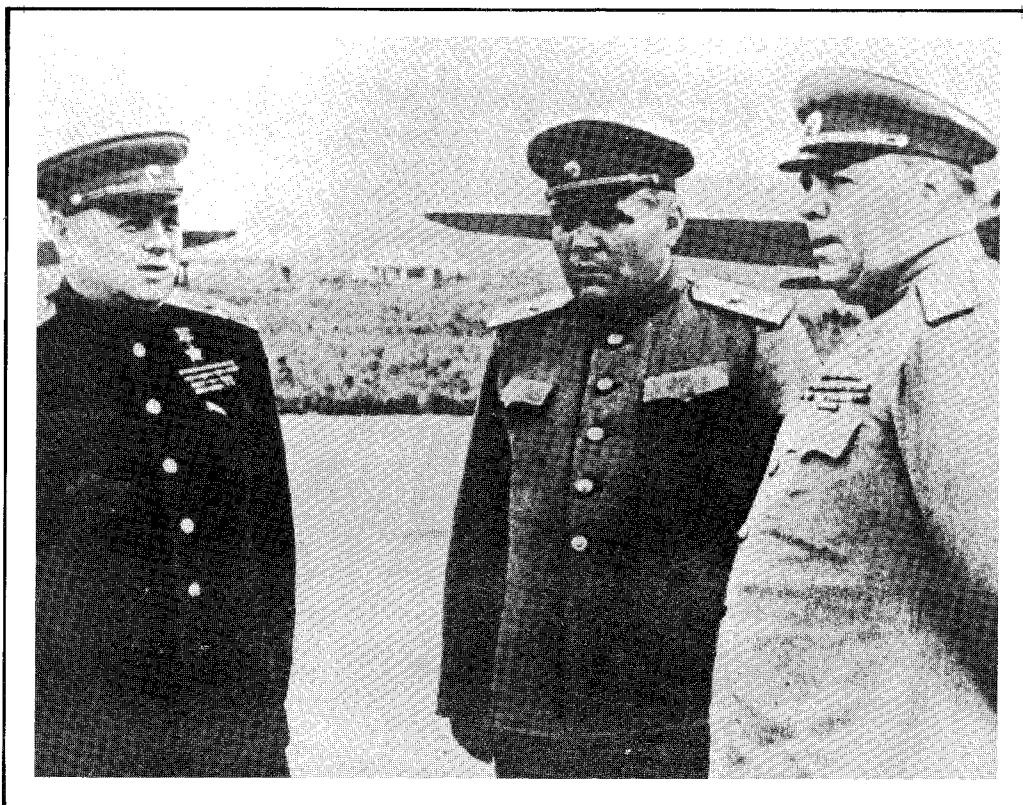
The Trans-Baikal Front consisted of one tank army (6th Guards), four combined arms armies (53d, 39th, 17th, 36th), a Soviet-Mongolian Cavalry-Mechanized Group, an air army (12th), and a small reserve. The front comprised 654,040 men organized into thirty rifle divisions, five cavalry divisions, two tank divisions, ten tank brigades, eight mechanized, motorized rifle, or motorized armored brigades, and numerous support units. It contained 41.4 percent of the total Soviet force in the Far East, and its total operational frontage extended 2,300 kilometers.¹

The 1st Far Eastern Front consisted of four combined arms armies (5th Guards, 1st Red Banner, 35th, and 25th), one mechanized corps (10th), an operational group (Chuguevsk), an air army (9th), and a reserve. The front



Map 15. Soviet Far East Command Dispositions

numbered 586,589 men organized into thirty-one rifle divisions, one cavalry division, twelve tank brigades, two mechanized brigades, and support units. Operating on a frontage of only 700 kilometers, the front had 37.2 percent of the total Soviet force.²



From right to left: Commander of the Far East Command, Marshal A. M. Vasilevsky; Commander of the Trans-Baikal Front, Marshal R. Ya. Malinovsky; and Commander of the 1st Far Eastern Front, Marshal K. A. Meretskov.

Vasilevsky, Aleksandr Mikhailovich (1895—?), Far East Command

- 1915—joined Russian Army; Alekseev Military School; junior officer, Novokhopersk Regiment; 103d Infantry Division, company, battalion commander.
- 1918—joined Red Army; assistant platoon commander, company commander, detachment commander.
- 1919—(Oct) battalion commander; commander, 5th Rifle Regiment, 2d Tula Rifle Division; regimental commander, 48th Rifle Division; regimental commander, 11th Petrograd Rifle Division (Russo-Polish War).
- 1920—assistant regimental commander, 48th Rifle Division; chief of staff, division school; regimental commander, 48th Rifle Division.
- 1931—Training Administration, RKKA (Workers and Peasants Red Army).
- 1934—Training Department, Volga Military District.
- 1936—general staff officer, RKKA.
- 1936—General Staff Academy.
- 1940—(May) assistant chief, Operations Division, General Staff.
- 1941—(Aug) assistant chief of General Staff; chief, Operations Division, General Staff.
- 1942—(May) chief of General Staff.
- 1942—(Oct) assistant commissar of defense, USSR; representative of the *STAVKA* at Stalingrad, Ostrogosh-Rossosh, Kursk, Donbas, Krivoi-rog, Nikopol, and Belorussian operations.
- 1945—(Feb) commander, 3d Belorussian Front (E. Prussia operation).
- 1945—(Jun) supreme commander, Soviet Forces Far East.
- 1946—chief of General Staff, deputy minister of the armed forces.
- 1948—(Nov) 1st deputy minister of the armed forces.

1949—(Mar) minister of the armed forces.
 1953—first deputy minister of defense.
 1956—deputy minister of defense for military science.
 1959—(Jan) general inspector, General Inspectors Group, Ministry of Defense.

Malinovsky, Rodion Yakovlevich (1898—1967), Trans-Baikal Front

1916—joined Russian Army; service in Russia and France.
 1918—joined Red Army; with 27th Rifle Division on eastern front.
 1920—commander, machine gun platoon; commander, machine gun command; assistant battalion commander; battalion commander.
 1930—Frunze Academy.
 1930—chief of staff, cavalry regiment, 10th Cavalry Division; on staff of North Caucasus and Belorussian Military Districts; chief of staff, 3d Cavalry Corps.
 1937—service in Spain.
 1939—instructor, Frunze Academy.
 1941—(Mar) commander, 48th Rifle Corps (border battles).
 1941—(Aug) commander, 6th Army.
 1941—(Dec) commander, Southern Front.
 1942—(Aug) commander, 66th Army.
 1942—(Oct) commander, Voronezh Front.
 1943—(Feb) commander, Southern Front.
 1943—(Mar) commander, Southwestern Front (Oct 1943 renamed 3d Ukrainian Front) (Donbas, Right Bank of Ukraine, Odessa operations).
 1944—(Mar) commander, 2d Ukrainian Front (Iassy-Kishinev, Debrecen, Budapest, Vienna operations).
 1945—(Jul) commander, Trans-Baikal Front.
 1945-47—commander, Trans-Baikal-Amur Military District.
 1947—commander of forces in the Far East.
 1953—commander of Far East Military District.
 1956—(Mar) first deputy minister of defense and commander of ground forces.
 1957—(Oct) minister of defense.

Meretskov, Kirill Afanas'evich (1897—1968), 1st Far Eastern Front

1918—joined Red Army.
 1919—detachment commander; brigade chief of staff; division chief of staff.
 1921—RKKA Military Academy.
 1922—chief of staff, 1st Tomsk Siberian Cavalry Division; assistant chief of staff, 15th Rifle Corps; chief of staff, 9th Don Rifle Division.
 1924—chief, Mobilization Department, Moscow Military District; assistant chief of staff, Moscow Military District.
 1930—commander, 14th Rifle Division.
 1931—chief of staff, Moscow and Belorussian Military Districts.
 1935—chief of staff, Special Red Banner Far Eastern Army.
 1936—service in Spain.
 1937—assistant chief of General Staff.
 1938—(Sep) commander, Volga and Leningrad Military Districts; commander, 7th Army (Finnish War).
 1940—(Aug) chief of General Staff.
 1941—(Jan) assistant commissar of defense.
 1941—(Jun) representative of STAVKA to Northwest and Karelian Fronts.
 1941—(Sep) commander, 7th Separate Army.
 1941—(Nov) commander, 4th Army (Tikvin Operation).
 1941—(Dec) commander, Volkov Front.
 1942—(May) commander, 33d Army.
 1942—(Jun) commander, Volkov Front.
 1944—(Feb) commander, Karelian Front.
 1945—(Apr) commander, Maritime Army (Far East).
 1945—(Aug) commander, 1st Far Eastern Front.
 1945—commander, Maritime, Moscow, White Sea, and Northern Military Districts; chief of *Vystrel* Course.
 1955—assistant minister of defense for higher military schools.
 1964—(Apr) General Inspectors Group, Central Inspectorate, Ministry of Defense.

The 2d Far Eastern Front included three combined arms armies (15th, 16th, 2d Red Banner), one separate rifle corps (5th), an operational group (Kuriles), an air army (10th), and a reserve. The front's 337,096 men operated on an extended frontage of 2,130 kilometers.³ This, the smallest of the three fronts, had about 21.4 percent of the total force. Thus, the total Soviet force available for operations against the Japanese included more than 1.5 million men. More than 26,000 artillery pieces and 5,500 tanks and self-propelled guns provided firepower support for the Far East Command.⁴

The Soviets carefully tailored all units, from front through army, corps, division, brigade, and regiment down to battalion level, to accomplish precise missions. Tailoring reflected not only enemy strength and dispositions, but also the terrain over which the unit would operate and the desired speed of the operation. Each unit received requisite artillery, antitank, tank, air defense, and engineer support. Thus, the 1st Far Eastern Front received heavy artillery attachments to provide the firepower necessary to overcome heavily fortified Japanese positions. The Trans-Baikal Front received heavy vehicular and motorized rifle support so that it might conduct rapid, balanced combined arms operations over the broad expanse of western Manchuria and Inner Mongolia. Within each front, armies operating against strong enemy fortified zones possessed significantly greater artillery assets than other armies operating on more open axes of advance. Units operating over difficult terrain had extensive engineer support. At the lowest tactical levels, tailored forward detachments of rifle divisions and tank and mechanized corps, as well as the assault groups of rifle regiments and rifle battalions, provided the firepower and mobility necessary to conduct high speed operations.

Such imaginative tailoring required by the nature of the area of operations resulted in a force structure in Manchuria that differed considerably from unit TO&Es* and force structures used earlier in the war. Some of these adjustments proved constructive, and the Soviets in postwar years incorporated the changes into formal unit TO&Es. A careful investigation of Soviet forces before 1945 and during the Manchurian campaign illustrates the dynamic nature of Soviet force structuring.

The evolution of Soviet force structure during World War II is the story of an army adjusting to the realities of war. The Soviet Army weathered the beatings it took at the hands of the Germans in 1941 and scaled down its forces accordingly. As the tide of war turned in the Soviets' favor in late 1942 and 1943, so did the Soviet Army grow in complexity and strength. The Soviet Army of 1941 was massive. Its units were large and ponderous. Rifle units organized as armies, corps, divisions, and regiments were the backbone of the force structure. Armies were large, theoretically consisting of as many as three to four rifle corps, for a total of twelve to fifteen rifle divisions, and reinforced by mechanized, cavalry, tank, and artillery units.⁵ Supplementing the rifle units and providing the mobile offensive punch were mechanized corps, with more than 1,000 tanks each, and separate cavalry corps.⁶ In addition, the Soviet force structure had separate tank brigades, separate antitank brigades, artillery regiments, and airborne corps. This large and cumbersome force was difficult to control, required quantities of equipment not available in 1941, and demanded topflight leadership, also generally unavailable when the war began.

*Tables of organization and equipment.

Table 3. Soviet Far East Command Composition

	Total	Trans-Baikal Front	1st Far Eastern Front	2d Far Eastern Front						
Personnel:										
Combat	1,058,982	416,000	404,056	238,926						
Rear Service	518,743	238,040	182,533	98,170						
Total	1,577,725	654,040	586,589	337,096						
	100%	41.4%	37.2%	21.4%						
Weapons:										
Guns/mortars	27,086	9,668	11,430	5,988						
Multiple rocket launchers	1,171	583	516	72						
Tanks/SP guns ^a	5,556	2,416	1,860	1,280						
Aircraft	3,721	1,324	1,137	1,260						
Vehicles	85,819	49,053	4,850	31,916						
Frontage:	5,130 km	2,300 km	700 km	2,130 km						
Organizations: ^b										
Total	Comb Arms	Air	Tank	Cav- Mech	Rifle	Cavalry	Motorized Rifle/ Mech	Arty	AAA	Engineer
Fronts	3	3	1	1						
Armies	15	11								
Groups	1									
Corps	24		1		19		3	1		
Divisions	89		2		72	6		2	7	
Brigades	113		30		4		12	47		20
Regiments	98		5 ^c		5			72	16	
Fortified regions	21									

^a. 3,704 tanks, 1,852 SP guns total in Soviet Far East Command.

^b. See app. 2 for unit designations.

^c. Includes motorcycle regiment

Sources: "Kampaniia sovetskikh vooruzhennikh sil na dal'nem vostoke v 1945g (fakt i tsify)" [The campaign of the Soviet armed forces in the Far East in 1945: Facts and figures], *Voenno-istoricheskii zhurnal* [Military history journal], August 1965:67; M. V. Zakharov, ed., *Final: istoriko-memuarny ocherk o razgrome imperialisticheskoi iaponii v 1945 godu* [Final: A historical memoir survey about the rout of imperialistic Japan in 1945] [Moskva: Izdatel'stvo "Nauka," 1969], 398—402.

Table 4. Trans-Baikal Front Composition

Personnel:		Total	17th Army ^d	39th Army ^d	6th Guards Tank Army ^d	Cav-Mech Group ^d	36th Army ^d	53d Army ^d				
Combat		416,000										
Rear Service		238,040										
Total		654,040										
41.4% of Far East Command												
Weapons:												
Guns/mortars		9,668	830	2,708	1,150	610						
Multiple rocket launchers		538	24									
Tanks/SP guns		2,416	137	502	1,019	403						
Aircraft		1,324										
Vehicles		49,053										
Frontage:		2,300 km										
Organizations: ^e		Total	Comb Arms	Air	Tank	Cav-Mech	Rifle	Cavalry	Motorized Rifle/ Mech	Arty	AAA	Engineer
Armies		6	4	1	1							
Groups		1				1						
Corps		12			1		8		2	1		
Divisions		43			2		30 ^a	5		2	4	
Brigades		42			10 ^b				10	12		10
Regiments		34			3 ^c					24	7	
Fortified regions		2										

^a. Includes 2 motorized rifle divisions.

^b. Includes 1 motorized armored brigade.

^c. Includes motorcycle regiments.

^d. Only verifiable data included.

^e. See app. 2 for unit designations.

Sources: "Kampaniia sovetskikh vooruzhennikh sil na dal'nem vostoke v 1945g (facti i tsifry)" [The campaign of the Soviet armed forces in the Far East in 1945: Facts and figures], *Voenno-istoricheskii zhurnal* [Military history journal], August 1965:67; M. V. Zakharov, ed., *Final: istoriko-memuarny ocherk o razgrome imperialisticheskoi iaponii v 1945 godu* [Finale: A historical memoir survey about the rout of imperialistic Japan in 1945] (Moskva: Izdatel'stvo "Nauka," 1969), 398—99.

Table 5. 1st Far Eastern Front Composition

Personnel:		Total	1st Red Banner Army ^c	5th Army ^c	25th Army ^c	35th Army ^c					
Combat		404,056									
Rear Service		182,533									
Total		586,589									
		37.2% of Far East Command									
Weapons:											
Guns/mortars		11,430		2,945	1,669	955					
Multiple rocket launchers		516		432							
Tanks/SP guns		1,860	402	692	121	205					
Aircraft		1,137									
Vehicles		4,850									
Frontage:		700 km									
Organizations: ^a	Total	Comb Arms	Air	Tank	Cav-Mech	Rifle	Cavalry	Motorized Rifle/Mech	Arty	AAA	Engineer
Armies	5	4	1								
Groups	1										
Corps	10					9		1			
Divisions	34					31	1			2	
Brigades	54			12				2	33		7
Regiments	29			2 ^b					23	4	
Fortified regions	14										

^a See app. 2 for unit designations.^b Includes 1 motorcycle regiment.^c Only verifiable data included.

Sources: "Kampaniia sovetskikh vooruzhennikh sil na dal'nem vostoke v 1945g (facti i tsifry)" [The campaign of the Soviet armed forces in the Far East in 1945: Facts and figures], *Voenna-istoricheskii zhurnal* [Military history journal], August 1965:67; M. V. Zakharov, ed., *Final: istoriko-memuarny ocherk o razgrome imperialisticheskoi iaponii v 1945 godu* [Finale: A historical memoir survey about the rout of imperialistic Japan in 1945] (Moskva: Izdatel'stvo "Nauka," 1969), 401.

Table 6. 2d Far Eastern Front Composition

Personnel:		Total	2d Red Banner Army ^b	15th Army ^b	16th Army ^b	5th Separate Rifle Corps ^b						
Combat		238,926										
Rear Service		98,170										
Total		337,096										
		21.4% of Far East Command										
Weapons:												
Guns/mortars		5,988	1,270	1,433								
Multiple rocket launchers		72										
Tanks/SP guns		1,280	240	164								
Aircraft		1,260										
Vehicles		31,916										
Frontage:		2,130 km										
Organizations: ^a		Total	Comb Arms	Air	Tank	Cav- Mech	Rifle	Cavalry	Motorized Rifle/ Mech	Arty	AAA	Engineer
Armies		4	3	1								
Groups		0										
Corps		2					2					
Divisions		12					11					
Brigades		17			8		4			2	1	3
Regiments		35					5			25	5	
Fortified regions		5										

^a See app. 2 for unit designations.

^b Only verifiable data included.

Sources: "Kampaniia sovetskikh vooruzhennikh sil na dal'nem vostoke v 1945g (facti i tsifry)" [The campaign of the Soviet armed forces in the Far East in 1945: Facts and figures], *Voenno-istoricheskii zhurnal* [Military history journal], August 1965:67; M. V. Zakharov, ed., *Final: istoriko-memuarny ocherk o razgrome imperialisticheskoi iapony v 1945 godu* [Finale: A historical memoir survey about the rout of imperialistic Japan in 1945] (Moskva: Izdatel'stvo "Nauka," 1969), 400.

Launched in surprise and characterized by audacious maneuvers to great depths, the German invasion of 1941 shattered this Soviet force structure. So the Soviets retrenched. Heavy losses in manpower and materiel at the hands of the Germans, and the relative inability of commanders to control large units, drove the Soviet leadership to truncate and simplify its forces. It scaled down the size of rifle armies, abolished the rifle corps level, and decreased the manpower and weaponry in rifle divisions. The Soviets abolished those mechanized corps not already destroyed by the Germans and in their place created tank brigades to provide necessary armor support to infantry units. The Soviets replaced destroyed rifle divisions with the smaller and more easily created and controlled rifle brigades. They disbanded the large, but incomplete, antitank brigades, pooled support weaponry in battalion and regimental strength at the high command reserve level, and parceled it out to armies and fronts as required.

The retrenchment program worked, and Soviet forces survived the harsh winter of 1941–42. During 1942 the Soviets slowly rebuilt their force structure, increased the strength of rifle forces, and rebuilt their offensively oriented tank and mechanized forces. Beginning in early 1942, the rifle corps link was gradually reintroduced. In April 1942, the first reorganized tank corps appeared, followed in September 1942 by mechanized corps. From May to June 1942 ad hoc tank armies were formed in time to help absorb the shock of the German summer offensive of 1942 and to participate in the hour of victory at Stalingrad. In January 1943, the Soviets created new tank armies on a common TO&E. Throughout 1944, the complexity and strength of Soviet forces grew. The number of tank corps, mechanized corps, and tank armies increased. Rifle corps links appeared in virtually every army, and the number and fire power of rifle divisions grew. Rifle brigades dwindled in number as the Soviets replaced them with streamlined rifle divisions. To provide combat support, the Soviets created a host of units of every type including artillery brigades, divisions, and corps; tank destroyer regiments and brigades; antiaircraft regiments and divisions; engineer sapper units from battalion to army size; guards mortar (multiple-rocket launcher) regiments, brigades, and divisions; self-propelled artillery battalions, regiments, and brigades; and antiaircraft divisions and regiments.

Soviet forces slowly developed a capability—absent in the first two years of the war—to fully implement Soviet doctrinal concepts prevalent from the 1930s. Deep operations again became possible, if at first costly. The growing maturity of doctrine and the education of Soviet forces in the art of mobile warfare gave rise to further sophistication in the force structure manifested by the changes of 1944–45. By 1945, the Soviet force structure had fully matured. Bloodied by heavy wartime losses, the Soviet Army turned to fire power, mobility, and machines to compensate for the scarcity of manpower. The Soviets blended new tactical techniques with a carefully

articulated force structure to achieve success. Nowhere was this more evident than in Manchuria, where the last adjustments were made to the force structure and its use before the postwar reforms.

In August 1945, the basic unit subordinate to the front was the combined arms army. The typical combined arms army of 1945 (see table 7) contained three rifle corps totaling seven to twelve rifle divisions, one or two gun artillery brigades, a tank destroyer brigade, an antiaircraft division, a mortar regiment, a signal regiment, an engineer-sapper brigade, two to three tank brigades or regiments, and a tank or mechanized corps. Support units from front level frequently augmented this structure. The army ranged in strength from 80,000 to 100,000 men, with 320 to 460 tanks, 1,900 to 2,500 guns and mortars, and 100 to 200 self-propelled guns.⁷

Table 7. Soviet Combined Arms Army TO&E, 1945		
Subordinate Units	Weapons	Personnel
3 rifle corps 7—12 rifle divisions 1—2 artillery brigades 1 tank destroyer brigade 1 antiaircraft division 1 mortar regiment 1 signal regiment 1 engineer-sapper brigade 2—3 tank brigades/regiments 1 tank/mechanized corps	320—460 tanks 1,900—2,500 guns/mortars 100—200 SP guns	80,000—100,000

Sources: P. A. Kurochkin, ed., *Obshchevoiskovaia armii v nastuplenii* [The combined arms army in the offensive] (Moskva: Voennoe izdatel'stvo, 1966), 192; *Sovetskaia voennaia entsiklopediia* [Soviet military encyclopedia] (Moskva: Voennoe izdatel'stvo, 1978), 1:256.

The experience in Manchuria demonstrated the increased Soviet tendency to tailor the size of armies to the concrete conditions they faced. In Manchuria, the largest armies deployed opposite the more heavily fortified sectors or main attack sectors, and they received massive amounts of fire-power support. At the other end of the spectrum, smaller armies tailored to suit local conditions operated on secondary axes. Table 8 shows the composition of Soviet armies in Manchuria and the conditions that dictated the composition of each army.

This tendency to tailor army composition illustrates the maturity of Soviet force development and the flexibility resulting from four years of warfare. The Soviets retained many of the improvements in the army structure in the 1946 reorganization. Hence, the heavy tank and self-propelled gun regiment, the tank destroyer brigade, and the antiaircraft division attached to armies in Manchuria were incorporated into the combined arms army TO&E of the postwar years.⁸

Table 8. Soviet Combined Arms Armies in Manchuria and the Terrain Over Which They Operated

Army	35th Army	15th Army	2d Red Banner Army	5th Army	39th Army	1st Red Banner Army
Terrain	Swampy, marshy region with low fortified hills	Marshy, flood plain traversed by major rivers	Rolling, heavily fortified hills and mountains	Heavily fortified zone with rolling wood and brush covered hills	Fortified zone in mountainous arid area	Mountainous, heavily wooded taiga
Subunits	3 rifle divs 2 tank bdes 4 artillery bdes 1 antiaircraft regt 1 guards mortar regt	3 rifle divs 3 tank bdes 6 artillery regts 2 mortar regts 2 antitank regts 1 antitank bde 1 antiaircraft div 1 antiaircraft regt 2 guards mortar regts	3 rifle divs 3 tank bdes 5 artillery regts 2 mortar regts 1 antitank regt 1 antiaircraft regt 1 guards mortar regt	4 rifle corps 12 rifle divs 5 tank bdes 5 SP regts 12 SP bns 15 artillery bdes	3 rifle corps 9 rifle divs 1 tank div 2 tank bdes 3 SP regts 2 artillery divs 14 artillery bdes	2 rifle corps 6 rifle divs 3 tank bdes 3 SP regts 6 SP bns 1 heavy tank/SP gun regt 5 artillery bdes
Weapons	205 tanks/SP guns 955 guns/mortars	164 tanks/SP guns 1,433 guns/mortars	240 tanks/SP guns 1,270 guns/mortars	692 tanks/SP guns 2,945 guns/mortars 432 multiple rocket launchers	455 tanks/SP guns 2,586 guns/mortars	410 tanks/SP guns 1,413 guns/mortars

Sources: L. N. Vnotchenko, *Pobeda na dal'nem vostoke* [Victory in the Far East] (Moskva: Voennoe izdatel'stvo, 1971), 88, 92, 94, 97; N. I. Krylov, N. I. Alekseev, and I. G. Dragan, *Navstrechu pobede: boevoi put 5-i armii, oktiabr 1941g—avgust 1945g* [Towards victory: The combat path of the 5th Army, October 1941—August 1945] (Moskva: Izdatel'stvo "Nauka," 1970), 426—27; M. Sidorov, "Boevoe primeneniye artillerii" [The combat use of artillery]. *Voenno-istoricheskii zhurnal* [Military history journal], September 1975:14; V. Ezhakov, "Boevoe primeneniye tankov v gorno-tazhnoi mestnosti po opytu 1-go dal'nevostochnogo fronta" [Combat use of tanks in mountainous-taiga regions based on the experience of the 1st Far Eastern Front]. *Voenno-istoricheskii zhurnal* [Military history journal], January 1974.

The structure of the rifle corps operating within the army was less defined than the structure of the army. Before 1945, a typical rifle corps (see table 9) consisted of three rifle divisions, an artillery brigade of two regiments, a self-propelled artillery regiment, a guards mortar regiment, and antiaircraft, sapper, and signal battalions totaling 300 to 400 guns and 450 to 500 mortars.⁹ Tank corps acting as the mobile group of the army, or tank brigades and regiments supporting rifle divisions, provided tank support for the rifle corps. In Manchuria, rifle corps were either subordinate to the army or separate entities subordinate to the front. The Soviets flexibly structured each corps to the requirements of its operational sector. The rifle corps consisted of two to five rifle divisions (most often three) reinforced by one to two tank brigades, two self-propelled artillery regiments, and from two to four self-propelled artillery battalions. Most corps had additional tank and artillery reinforcement. Table 10 shows the composition of representative rifle corps and the characteristics of their areas of operations. In post-war years, the Soviets formalized their earlier ad hoc practice of attaching tanks and antitank weapons to the rifle corps by incorporating a mechanized division and an antitank regiment into the rifle corps TO&E structure.¹⁰

Table 9. Soviet Rifle Corps TO&E, 1945	
Subordinate Units	Weapons
3 rifle divisions 1 artillery brigade 2 regiments 1 SP gun regiment 1 guards mortar regiment 1 antiaircraft battalion 1 sapper battalion 1 signal battalion	300—400 guns 450—500 mortars

Source: *Sovetskaia voennaia entsiklopediia* [Soviet military encyclopedia] (Moskva: Voennoe Izdatel'stvo, 1979), 7:571.

The rifle division was the basic fighting unit of the Soviet Army. Its structure underwent significant modification during the Manchurian operation. Validated in combat, these modifications were incorporated into the rifle division TO&E at war's end. According to the June 1945 TO&E, the rifle division (see table 11) consisted of three rifle regiments, each with a battery of four 76-mm guns; an artillery brigade of three regiments of guns, howitzers, and mortars; a self-propelled artillery, an antitank, a sapper, a signal, and a training battalion; and a reconnaissance company. The division had 11,780 men and was equipped with 16 self-propelled guns, 52 field artillery pieces, 136 mortars, 12 antiaircraft guns, and 66 antitank guns.¹¹

Table 10. Soviet Rifle Corps in Manchuria and the Terrain Over Which They Operated

Corps	72d Rifle Corps, 5th Army	5th Separate Rifle Corps	39th Rifle Corps, 25th Army
Terrain	Heavily fortified, rolling wooded and brush covered hills	Fortified low hills with sparse vegetation	Heavily fortified, heavily wooded mountains with limited road net
Subunits	3 rifle divisions 2 tank brigades 2 heavy SP regiments 8 artillery brigades (2 high power) 4 artillery regiments 3 artillery battalions (2 high power) 2 mortar brigades 2 guards mortar brigades 2 guards mortar regiments 1 engineer-sapper brigade	2 rifle divisions 1 tank brigade 2 SP battalions 1 antitank brigade 1 antiaircraft regiment 2 antiaircraft battalions	5 rifle divisions 1 tank brigade 4 SP battalions
Weapons	undetermined	undetermined	121 tanks/SP guns 1,669 guns/mortars

NOTE: Most corps had 3 rifle divisions, 1—2 tank brigades, 2 SP regiments, and heavier than usual artillery.

Sources: L. N. Vnotchenko, *Pobeda na dal'nem vostoke* [Victory in the Far East] (Moskva: Voennoe Izdatel'stvo, 1971), 94, 109—10, 125; N. I. Krylov, N. I. Alekseev, and I. G. Dragan, *Navstrechu pobede: boevoi put 5-i armii, oktiabr 1941g—avgust 1945g* [Towards victory: The combat path of the 5th Army, October 1941—August 1945] (Moskva: Izdatel'stvo "Nauka," 1970), 436—37.

Table 11. Soviet Rifle Division TO&E, 1945

Subordinate Units	Weapons	Personnel
3 rifle regiments: 1 artillery battery (4×76mm) 1 artillery brigade* 1 gun artillery regiment (20×76mm) 1 howitzer artillery regiment (20×122mm) 1 mortar regiment (20×160mm) 1 SP battalion (16×SU-76 SP) 1 antiaircraft battalion 1 antitank battalion (57mm, 76mm) 1 sapper battalion 1 signal battalion 1 reconnaissance company 1 training battalion –	16 SP guns 52 guns (field) 136 mortars 12 AA guns 66 AT guns	11,780

*Most had but one organic regiment.

Sources: A. I. Radzievsky, ed., *Taktika v boevykh primerakh (diviziia)* [Tactics by combat example: Division] (Moskva: Voennoe Izdatel'stvo, 1976), scheme 1; P. A. Kurochkin, ed., *Obshchevoiskovaia armia v nastuplenii* [The combined arms army in the offensive] (Moskva: Voennoe Izdatel'stvo, 1966), 204.

Because of the lag time in implementing new TO&Es, most rifle divisions in Manchuria still had one artillery regiment (according to the older June 1943 TO&E) instead of the artillery brigade. The Soviets made major modifications to this structure in Manchuria by routinely attaching to the rifle division a wide array of supporting units. Table 12 shows the composition of selected rifle divisions.

Table 12. Soviet Rifle Divisions in Manchuria and the Terrain Over Which They Operated

Division	300th Rifle Division, 1st Red Banner Army	363d Rifle Division, 35th Army	Main attack divisions 1st Red Banner Army & 5th Army
Terrain	Lightly defended, heavily wooded mountains without roads	Swampy region punctuated by low, lightly fortified hills	Heavily fortified, rolling areas flanked by heavily wooded, brush covered mountains
Subunits	3 rifle regiments 1 artillery regiment 1 SP battalion (13×SU-76) 1 antitank battalion 1 signal battalion 1 sapper battalion 1 training battalion Attached: 1 howitzer regiment 1 heavy artillery regiment (–) (6×150mm) 1 heavy artillery regiment (8×240mm, 2×150mm) 1 howitzer artillery battalion (3×300mm) 1 tank company 1 sapper battalion 1 tank brigade (10 August)	3 rifle regiments 1 artillery regiment 1 SP battalion 1 antitank battalion 1 signal battalion 1 sapper battalion 1 training battalion Attached: 1 tank brigade 1 mortar brigade 1 antitank regiment 1 guards mortar regiment	1 rifle division (13×SU-76 SP) 1 tank brigade 1 heavy SP regiment
Weapons	undetermined	undetermined	65 tanks 34 SU-76 SP guns

Sources: A. A. Stokov, ed., *Istoriia voennogo iskusstva* [The history of military art] (Moskva: Voennoe Izdatel'stvo, 1966), 507; M. Zakharov, "Nekotorye voprosy voennogo iskusstva v sovetsko-iaponskoi voina 1945-goda" [Some questions of military art in the Soviet-Japanese War of 1945], *Voenno-istoricheskii zhurnal* [Military history journal], September 1969:20; S. Pechenenko, "363-ia strelkovaia diviziia v boyakh na Mishan'skom napravlenii" [The 363d Rifle Division in battles on Mishan direction], *Voenno-istoricheskii zhurnal* [Military history journal], July 1975:39; V. Timofeev, "300-ia strelkovaia diviziia v boyakh na Mudan'tsyanskom napravlenii" [The 300th Rifle Division in battles on the Mutanchiang direction], *Voenno-istoricheskii zhurnal* [Military history journal], August 1978:50.

The attachment of tank regiments or brigades to rifle divisions was a normal practice throughout the campaign in all regions of the theater. The Soviets formalized that ad hoc practice by including additional artillery, tanks, and self-propelled guns in the new rifle division of the postwar years. According to the rifle division TO&E of 1946, each rifle division incorporated a full artillery brigade and a medium tank and self-propelled gun regiment with fifty-two tanks and sixteen self-propelled guns.¹²

In the Soviet force structure of 1945, the tank army, the separate tank corps, and the separate mechanized corps provided the mobile offensive punch. The tank army of 1945 (see table 13) consisted of two tank corps; one mechanized corps; a motorcycle regiment; a light artillery brigade; two mortar regiments; two antiaircraft regiments; a light self-propelled artillery brigade; a guards mortar brigade; a motorized engineer brigade; and signal, transport, and logistical units. Its twenty-one tank battalions and fifteen motorized rifle battalions totaled 808 tanks and self-propelled guns.¹³ Because most tank armies in 1944 and 1945 lacked the mechanized corps, their strength was lower and their ratio of tank to motorized rifle battalions was higher than the TO&E indicated.

Table 13. Soviet Tank Army TO&E, 1945

Subordinate Units	Weapons
2 tank corps	620 tanks
1 mechanized corps	188 SP guns
1 motorcycle regiment	
1 light artillery brigade	
2 regiments (76mm guns)	
1 regiment (100mm guns)	
2 mortar regiments	
2 antiaircraft regiments	
1 light SP brigade	
1 guards mortar regiment	
1 motorized engineer brigade	
1 signal regiment	
1 aviation communications regiment	
1 transport regiment	
2 repair reconstruction battalions	

Sources: I. Anan'ev, "Sozdanie tankovykh armii i sovershenstvovanie ikh organizatsionnoi struktury" [The creation of tank armies and the perfecting of their organizational structure], *Voenno-istoricheskii zhurnal* [Military history journal], October 1972:38—47; *Sovetskaia voennaia entsiklopediia* [Soviet military encyclopedia] (Moskva: Voennoe Izdatel'stvo, 1979), 660—61.

The 6th Guards Tank Army differed considerably from other tank armies and the TO&E model. Augmented with additional tank and motorized rifle forces because of the required scope of its operations, this army

consisted of two mechanized corps, one tank corps, two motorized rifle divisions (a remnant of the 1941 force structure), two self-propelled artillery brigades, two light artillery brigades, a motorcycle regiment, and other normal support units. This reconfiguration gave 6th Guards Tank Army a balance of twenty-five tank and forty-four motorized rifle battalions with 1,019 tanks and self-propelled guns.¹⁴ This structure with its larger number of motorized rifle battalions resembled the 1946 mechanized army more than it did the 1945 standard tank army. The 1946 mechanized army consisted of twenty-eight tank battalions and thirty motorized rifle battalions with a strength of about 1,000 tanks and self-propelled guns.¹⁵ Thus, the balance of tank and motorized forces in the tank army that the Soviets developed in Manchuria persisted into the postwar years in the makeup of the mechanized army. The tank corps within the tank army corresponded with TO&E requirements (see table 14). Its basic tactical units were three tank brigades and one motorized rifle brigade, and it included 270 tanks and self-propelled guns and 11,788 men.¹⁶

Table 14. Soviet Tank Corps TO&E, 1945		
Subordinate Units	Weapons	Personnel
3 tank brigades 1 motorized rifle brigade 1 SP regiment (SU-76) 1 SP regiment (SU-100) 1 mortar regiment 1 antiaircraft regiment 1 light artillery regiment 1 heavy tank regiment 1 guards mortar battalion 1 motorcycle battalion 1 transport company	228 tanks 42 SP guns	11,788

Sources: A. I. Radzievsky, ed., *Taktika v boevykh primerakh (diviziia)* [Tactics by combat example: Division] (Moskva: Voennoe Izdatel'stvo, 1976), scheme 3; P. A. Kurochkin, ed., *Obshchevoiskovaia armia v nastuplenii* [The combined arms army in the offensive] (Moskva: Voennoe Izdatel'stvo, 1966), 208.

The separate mechanized corps that operated in Manchuria did not vary significantly from the normal TO&E. The mechanized corps in 1945 (see table 15) consisted of three mechanized brigades, one tank brigade, three self-propelled artillery regiments, and other support units. Its strength was 16,314 men and 246 tanks and self-propelled guns.¹⁷ The 10th Mechanized Corps, operating as the mobile group of the 1st Far Eastern Front, comprised two mechanized brigades (one fewer than normal), one tank brigade, and normal support units. The only attachments to TO&E were a motorcycle regiment for extended reconnaissance and a tank destroyer regiment. The 10th Mechanized Corps numbered 249 tanks and self-propelled guns.¹⁸

Table 15. Soviet Mechanized Corps TO&E, 1945		
Subordinate Units	Weapons	Personnel
3 mechanized brigades 1 tank brigade 3 SP regiments (light, medium, heavy) 1 mortar regiment 1 antiaircraft regiment 1 guards mortar battalion 1 motorcycle battalion 1 signal battalion 1 sapper battalion 1 medical battalion 1 transport company 1 repair reconstruction company	183 tanks 63 SP guns	16,314

Source: A. I. Radzievsky, ed., *Taktika v boevykh primerakh (diviziia)* [Tactics by combat example: Division] (Moskva: Voennoe Izdatel'stvo, 1976), scheme 2.

Lower echelon tank units also underwent changes that persisted into the postwar years. By TO&E, the tank brigades of the tank and mechanized corps and the separate tank brigade of 1945 (see table 16), designed to provide tank support for infantry and to lead an advance as a forward detachment, had by TO&E three tank battalions of two tank companies each, a motorized rifle battalion, and support units. The tank brigade's strength totaled sixty-five tanks.¹⁹ In Manchuria the Soviets regularly reinforced tank brigades with a self-propelled artillery regiment or battalion, a guards mortar battalion, a light artillery regiment or battalion, and a sapper company or platoon. The Soviets abolished the separate tank brigade in 1946. Tank brigades of tank and mechanized corps became tank regiments of tank and mechanized divisions. These tank regiments consisted of three tank battalions, one motorized rifle battalion, and one self-propelled gun battalion.²⁰ Thus, even at this level, the changes introduced in Manchuria in 1945 were retained in the 1946 force structure.

Table 16. Soviet Tank Brigade TO&E, 1945		
Subordinate Units	Weapons	Personnel
3 medium tank battalions (21×T-34s) 1 motorized rifle battalion 1 antiaircraft machine gun company 1 antitank company 1 medical sanitary platoon	65 tanks	1,354

Source: P. A. Kurochkin, ed., *Obshchevoiskovaia armia v nastuplenii* [The combined arms army in the offensive] (Moskva: Voennoe Izdatel'stvo, 1966), 206.

The Soviet force structure also included specialized tank and artillery units. The separate medium tank regiments (thirty-nine T-34 and T-70 tanks), the separate heavy tank regiments (twenty-one JS-2 tanks), the light self-propelled artillery brigades (SU-76), the medium self-propelled artillery brigades (SU-100), and heavy self-propelled artillery brigades (SU-152) provided fire support for rifle divisions or corps, tank corps and armies, and mechanized corps.²¹ Need was the criterion for assignment, but virtually every large unit received the support of these tank and self-propelled gun

Table 17. Major Artillery Units in the Soviet Army Force Structure, 1945

Major Units	Subordinate Units	Weapons
Artillery breakthrough corps	2 artillery breakthrough divisions 1 guards mortar division	728—800 guns/mortars 864 multiple rocket launcher ramps
Artillery breakthrough division	1 light artillery brigade (48×76mm) 2 regiments 1 howitzer artillery brigade (84×122mm) 3 regiments 1 heavy gun artillery brigade (36×152mm) 2 regiments 1 heavy howitzer brigade (32×152mm) 4 battalions 1 high power howitzer brigade (24×203mm) 4 battalions 1 mortar brigade (108×120mm) 3 regiments 1 heavy mortar brigade (36×160mm) 4 battalions 1 guards mortar brigade (36×BM-31) 3 battalions	364—400 guns/mortars/rockets
Tank destroyer brigade (AT)	3 tank destroyer regiments 1 self-propelled gun regiment (SU-76) 1 self-propelled gun regiment (SU-85)	72 AT guns (57mm, 100mm)
Antiaircraft artillery division	1 medium antiaircraft artillery regiment (16×85mm) 3 light antiaircraft artillery regiments (16×37mm each)	64 AA guns

Sources: K. Malin'in, "Razvitie organizatsionnykh form sukhoputnykh voisk v Velikoi Otechestvennoi voine" [Development of the organizational forms of the ground forces in the Great Patriotic War], *Voenna-istoricheskii zhurnal* [Military history journal], August 1967:35—38; N. Popov, "Razvitie samokhodnoi artillerii" [The development of self-propelled artillery], *Voenna-istoricheskii zhurnal* [Military history journal], January 1977:28—31; *Sovetskaia voennaia entsiklopediia* [Soviet military encyclopedia] (Moskva: Voennoe Izdatel'stvo, 1976), 1:265, 269, 270.

units. That support proved useful, so in 1946 the Soviets incorporated tanks and self-propelled guns throughout the entire reformed force structure. The rifle corps by 1951 had received a heavy tank and self-propelled gun regiment; the 1946 rifle division, a medium tank and self-propelled gun regiment; and the 1946 tank and mechanized divisions, a heavy tank and self-propelled gun regiment.²²

A wide variety of artillery units provided support for the combat units in the Soviet Army. Table 17 summarizes the strength of the most significant types of artillery units in the force structure. The Soviets attached these units to armies, corps, and divisions.